

### REMARKS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-10, 12, 13, 15, 17-28 and 33 remain pending in the present application.

Claims 1, 19, 23 and 33 have been amended support for which is found at least at Figure 12.

No new matter has been added.

By way of summary, the Official Action presents the following issues: Claims 1, 2, 4, 5, 7, 8, 10, 12, 13, 15, 17, 18, 23, 26-28, and 33 stand rejected under 35 U.S.C. § 102 as being unpatentable over Saffer (U.S. Patent No. 6,990,238); Claims 3, 6, 9, 19, 20, 24 and 25 stand rejected under 35 U.S.C. § 103 as being unpatentable over Saffer in view of Doerre (U.S. Patent No. 6,446,061); and Claims 21 and 22 stand rejected under 35 U.S.C. § 103 as being unpatentable over Saffer and Doerre in view of Branscomb (U.S. Patent No. 5,977,992).

### REJECTIONS UNDER 35 U.S.C. § 102

The Official Action has rejected Claims 1, 2, 4, 5, 7, 8, 10-18, 23 and 26-32 under 35 U.S.C. § 102 as being unpatentable over Saffer. The Official Action contends that Saffer describes all the Applicants' claimed features. Applicants respectfully traverse the rejection.

Applicants' amended Claim 1 recites, *inter alia*, an information retrieval apparatus, including:

... wherein the display processor is operable to generate data representative of an indication which when displayed on the graphical user interface provides a user, when viewing a first cluster in one of the hierarchical levels of a relative direction within the n-dimensional space of the location of another cluster within the hierarchical level which is not currently displayed within the display area, and the graphical user interface is operable to display the indication of the relative direction of the other cluster within the display area of the graphical display, and the data representing the number of

information items within the cluster is displayable with respect to the indication.

Saffer describes a system and associated method of analyzing information containing different types of data for presentation in an interactive visual format. Records or “objects” are defined as individual elements of a data set. Attributes are associated with objects and are analyzed to produce a high-dimensional vector for each record. The high-dimensional vectors are grouped in space (i.e., a coordinate system) to identify relationships, such as clustering among the various objects of the data set. The high-dimensional vectors are converted to a two-dimensional representation for viewing purposes. The two-dimensional representation of the high-dimensional vectors is described as a “projection”. The projections are viewed in accordance with different formats according to user selected options.<sup>1</sup> When objects are combined into clusters, the overall value for the cluster is represented as an average or other statistical measure, such as median of the object correlations, based only on those objects that are common between data sets. An indication of variation is provided since a cluster that contains 10 objects with a correlation of 0.8 and a cluster that contains 10 objects with a correlation of 0.9 and 1 with a correlation of -1 (both cluster with average of 0.8) may be of different interest to the user. Such an indication is achieved using multiple visualizations, for example by duplicating the previous query, that simultaneously show the average and the standard deviation, the minimum value or the maximum value.<sup>2</sup>

Conversely, an exemplary embodiment of the Applicants’ claimed advancement, an information retrieval apparatus is provided including a mapping processor operable to receive data representative of a map of information items from a set of information items identified in a search using a self organizing map. The map of information items provides the identified information items with respect to positions in an array in accordance with a mutual similarity

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<sup>1</sup> Saffer at column 4, line 34 through column 5, line 13.

<sup>2</sup> Saffer at column 29, lines 21-33.

of the information items. Similar information items map to similar positions in the array. The mapping processor forms a hierarchical clustering of information items providing a first clustering level of information items and at least one other clustering level of information items for clusters of information items within the first level of clusters. A display processor is provided in combination with a graphical user interface to display a representation of at least some of the positions of the array which correspond to identify information items as an n-dimensional display of display points within a display area of a graphical display. Data representative of an indication is generated and which when displayed on the graphical user interface provides a user, when viewing a first cluster in one of the hierarchical levels of a relative direction within n-dimensional space of the location of another cluster within the hierarchical level which is not currently being displayed within the display area. The graphical user interface displays the indication of the relative direction of the other cluster within the display area of the graphical display. The data representing the number of information items within the cluster is displayable with respect to the indication.

Saffer does not disclose or suggest a display processor in combination with a graphical user interface to generate data representing an indication which when displayed on the graphical user interface provides a user when viewing a first cluster in one of the hierarchical levels of a relative direction with the n-dimensional space of the location of another cluster within the hierarchical level which is not currently being displayed within the display area as recited in amended Claim 1.

In the Official Action of November 27, 2006, under the heading Response to Arguments there is noted that:

Examiner respectfully disagrees. As stated in the action above, Saffer discloses visualizations, which corresponds to providing a graphical indication to a user. Further, the indication is provided to point out that a cluster, which contains ten (10) records has a correlation of 0.8 and another cluster of ten

(10) records has a correlation of 0.9; which when averaged is a correlation of 0.8. It is known within the art that a positive correlation (i.e. 0.8) means that clusters tend to move up and down together, therefore located on the same hierarchical level. Saffer discloses at column 18, lines 27-62; for more details about the location of other clusters within the hierarchical level.

Judging from the above, the position of the Official Action seems to be that the Applicants' claimed feature of "viewing a first cluster in one of the hierarchical levels of a relative direction within the n-dimensional space of the location of another cluster within the hierarchical level" corresponds to the multiple visualizations presented by the Saffer reference. However, the Applicants' claims have amended to recite that the "another cluster" is not currently displayed within the display area. As such, the multiple visualizations of Saffer cannot anticipate the Applicants' amended claims.

As independent Claims 19, 23 and 33 recite substantially similar limitations to that discussed above, Applicants respectfully submit that these claims and their corresponding dependent claims are likewise allowable over the cited reference.

Accordingly, Applicants respectfully request that the rejection of Claims 1, 2, 4, 5, 7, 8, 10, 12, 13, 15, 17, 18, 23, 26-28, and 33 under 35 U.S.C. § 102 be withdrawn.

#### REJECTION UNDER 35 U.S.C. § 103

The Official Action has rejected Claims 3, 6, 9, 19, 20, 24 and 25 under 35 U.S.C. § 103 as being unpatentable over Saffer in view of Doerre. The Official Action contends that Saffer describes all the Applicants' claim limitations with the exception of providing first clustering level information items with a characterizing information feature.... However, the Official Action cites Doerre as describing this more detailed aspect of the Applicants' claimed advancement and states that it would have been obvious to one of ordinary skill in

the art at the time the advancement was made to combine the cited reference for arriving at the Applicants' claims. Applicants respectfully traverse the rejection.

As noted above, Saffer does not describe all of the elements of the Applicants' amended claims for which it has been asserted. Likewise, as Doerre does not remedy the deficiency discussed above, Applicants respectfully submit that a *prima facie* case of obviousness has not been presented.<sup>3</sup>

Accordingly, Applicants respectfully request that the rejection of Claims 3, 6, 9, 19, 20, 24 and 25 under 35 U.S.C. § 103 be withdrawn.

The Official Action has rejected Claims 21 and 22 under 35 U.S.C. § 103 as being unpatentable over Saffer in view of Doerre and in further view of Branscomb. The Official Action contends that the combination of Saffer and Doerre describe all of the Applicants' claimed features with the exception of information items including a representative key stamp providing a representative image from the information item. However, the Official Action cites Branscomb as describing this more detailed aspect of the Applicants' claimed advancement and states that it would have been obvious to one of ordinary skill in the art at the time the advancement was made to combine the cited references for arriving at the Applicants' claims. Applicants respectfully traverse the rejection.

As noted above, neither Saffer nor Doerre describe all of the features of the Applicants' amended claims for which they have been asserted. Likewise, as Branscomb does not remedy the deficiency discussed above, Applicants respectfully submit that a *prima facie* case of obviousness has not been presented.

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<sup>3</sup> Under the heading Response to Arguments in the Official Action of November 27, 2006, citation was made to In re Keller. Applicants note that citation to this case is clearly in error as Applicants have distinguished the claims relative to features of the Saffer reference. Thus, Applicants have distinguished the primary reference based upon the assertions made in the Official Action, as the secondary references are, by the very nature deficient with regard to these distinctions, this is not an attack of individual references, but an attack of the reasoning underlying the rejection and, as such, appropriate under 35 U.S.C. § 103.

Accordingly, Applicants respectfully request that the rejection of Claims 21 and 22 under 35 U.S.C. § 103 be withdrawn.

CONCLUSION

Consequently, in view of the foregoing amendment and remarks, it is respectfully submitted that the present application, including Claims 1-10, 12, 13, 15, 17-28 and 33 is patentably distinguished over the prior art, in condition for allowance, and such action is respectfully requested at an early date.

Respectfully submitted,

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